

(12) 按照专利合作条约所公布的国际申请

(19) 世界知识产权组织
国际局



(43) 国际公布日:
2005年9月29日(29.09.2005)

PCT

(10) 国际公布号:
WO 2005/089948 A1

(51) 国际分类号⁷: B02C 19/20

(21) 国际申请号: PCT/CN2005/000104

(22) 国际申请日: 2005年1月24日(24.01.2005)

(25) 申请语言: 中文

(26) 公布语言: 中文

(30) 优先权:
200410039858.5 2004年3月23日(23.03.2004) CN

(71)(72) 发明人/申请人: 杨富茂(YANG, Fumao) [CN/CN];
刘星发(LIU, Xingfa) [CN/CN]; 中国宁夏兰州市七里
河区敦煌路282号4门123号, Ningxia 730050 (CN)。

(74) 代理人: 隆天国际知识产权代理有限公司(LUNG TIN
INTERNATIONAL INTELLECTUAL PROPERTY
AGENT LTD.); 中国北京市朝阳区慧忠路5号远大中
心B座18层, Beijing, 100101 (CN)。

(81) 指定国(除另有指明, 要求每一种可提供的国家保护):
AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW,

BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM,
DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR,
HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC,
LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN,
MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL,
PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ,
TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU,
ZA, ZM, ZW

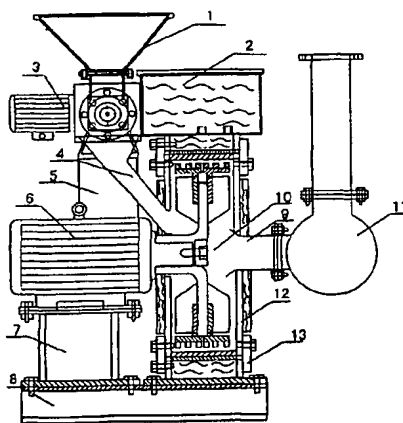
(84) 指定国(除另有指明, 要求每一种可提供的地区保护):
ARIPO(BW, GH, GM, KE, LS, MW, MZ, NA, SD,
SL, SZ, TZ, UG, ZM, ZW), 欧亚专利(AM, AZ, BY,
KG, KZ, MD, RU, TJ, TM), 欧洲专利(AT, BE, BG,
CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU,
IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK,
TR), OAPI(BF, BJ, CF, CG, CI, CM, GA, GN, GQ,
GW, ML, MR, NE, SN, TD, TG)

本国际公布:
— 包括国际检索报告。

所引用双字母代码和其它缩写符号, 请参考刊登在每期
PCT公报期刊起始的“代码及缩写符号简要说明”。

(54) Title: HIGH TURBULENCE MILL AND ITS BI-NEGATIVE PRESSURE TURBINE

(54) 发明名称: 高度湍流磨及其双负压涡轮



(57) Abstract: The invention relates to a high turbulence mill for processing supermicro powder and nano materials, including a driving device provided on a base; a hollow grinding chamber on which a stator guide toothed ring is secured; a bi-negative pressure turbine rotatably provided in the said grinding chamber; a hopper for feeding material via a feed-in tube into the grinding chamber; an outlet tube connected with the grinding chamber for transporting pulverized product; and a controlling device for electrically operating and controlling the high turbulence mill. When the especially designed bi-negative pressure turbine rotates at high speed by the driving of an electric shaft in the grinding chamber, high vortex and turbulence is formed in the grinding chamber, thereby generates gas-solid two phase current. By the high turbulence, materials are severely ground by themselves each other and generate severe collision and wear force, therefore materials are crashed effectively.

[见续页]

WO 2005/089948 A1